Formative Assessment Case Study Part 2
Writing and Communicating Success Criteria with Students

As a refresher, the following table shows the revisions Alexa made to the big idea and learning goals for her unit on digestion.

Table 3
Revised Big Idea and Learning Goals

Academic content standard(s) 1) Identify the functions of the human body's systems, including digestion, respiration, reproduction, circulation, excretion, movement, control and coordination, and protection from disease; and describe how they interact with one another 2) Explain that multi-cellular organisms have specialized cells, tissues, organs, and organ systems that perform certain necessary functions, including digestion, respiration, reproduction, circulation, excretion, movement, control and coordination, and protection from disease 3) Describe the structure and function of organs. Diagram and label the structure of the primary components of organs in animals and plants
Big idea The human body is a complex organization of many systems— digestion, circulation, respiration, and other. The organs of the digestive system each play a different and critical role to absorb and transport nutrients your body needs in order to thrive, and to rid the body of what it does not need.
Learning goals Students will: • Understand the function of each organ in the digestive system • Understand the pathway of digestion and how the system of digestion works • Know how enzymes support different aspects of the digestive process as food moves through the system

Writing Success Criteria

The next step in the planning process is to write the success criteria for this unit. Success criteria clarify *what students will be doing* when they successfully meet the learning goals. Similar to learning goals, success criteria should be tightly aligned to the standard. Students use success criteria to understand what the teacher will look for when they evaluate student work.

Alexa and Margaret check the notes from their summer session. They recall that success criteria describe, *from a student's perspective*, what evidence the teacher will be looking for to determine if the student has met the learning goal. Well-crafted success criteria help students check on their learning and better understand where they are in relation to the learning goal. Table 4 outlines key features of success criteria.

Table 4
Features of Success Criteria

Success criteria
• Describe observable behaviors that teachers will "look for" when students are successful meeting the learning goal • Provide a scaffold and focus for students to engage in the work • Include descriptors that allow for a range of student performance • Are limited in number so students are not overwhelmed by them • Are used as the basis for students to monitor their learning • Can be supported, where useful, by exemplars or student work samples which make their meaning more clear • Are discussed and agreed upon with students prior to instruction, or, ideally, created with input from students

Before students can have an understanding of criteria, teachers need to be clear on what success looks like. Alexa and Margaret decide to use student samples of work from last year to develop their success criteria. In last year's unit, students were videotaped sharing their final project with the class. Alexa reviews three 6-minute videotapes, one each of students who are high, medium, and low performing. From this review, she considers what students were able to do at each level to determine the characteristics of a successful performance.

Alexa recognizes that students who met the learning expectations evidenced that in the following four ways:

- Had accurate and clear documentation of the location, relative size and function of each organ within the system based on a scale drawing of the human body.
- Were able to describe (verbally and in writing) the entire system of digestion to accurately report how the organs of the digestive system worked inter-dependently to transport nutrients and waste.
- Used information about different enzymes to show how those enzymes supported the organ's functions.
- Offered hypotheses related to the impact of digestive enzymes on other organs and systems (e.g., hypothesizing about the impact of pancreatic cancer on other digestive organs).

Based on their review, Alexa and Margaret work together to come up with the following success criteria for the unit:

Students can:

- Describe the pathway of food and liquid through the digestive system
- Describe the correct sequencing of digestive organs
- Identify and describe the major structures of the digestive system including mouth, esophagus, stomach, pancreas, liver, gall bladder, small intestine, large intestine, rectum, and anus
- Explain the function of each structure in the digestive system
- Describe the role of enzymes in the digestive process
- Describe ways in which the digestive system is dependent and reliant on other body systems to function
- Name key enzymes in the digestive process, in particular enzymes of the mouth, stomach, and pancreas

Communicating Success Criteria with Students

Once teachers have created learning goals and success criteria, their next step is to share these with students. Alexa has consistently shared learning goals with students by posting and reviewing them at the beginning of a class. However, she learned through her recent professional development that this is only a first step. Students are able to take more ownership of their learning if they interact with the criteria in a variety of ways throughout the lesson. For formative assessment to take place, students must be able to use the criteria and self-monitor their learning. In this way, both teachers and students come to share a common understanding of what quality work looks like. While Alexa regularly shares learning goals with her students, she does not feel that most students *understand the level of quality* she expects in the work.

At the summer workshop, teachers did a think/pair/share around the following questions:

1. What opportunities do my students have to reflect on the big ideas in the unit?
2. How do I help my students clarify their understandings of the learning goals?
3. What opportunities do my students have within a lesson to practice applying the success criteria?
4. What opportunities do I offer students in my classroom to self-assess or provide peer feedback in relation to the success criteria?

At that session, Alexa decided to have students write the learning goals and success criteria in their science journals for each unit, and to ensure that at key points in the lesson she will have students individually or collectively reflect on their progress at that point. She also is conferring with students on a monthly basis to review students' science inquiry logs and she will use her conferring time to check in with students on their progress.